Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act	)	**GN Docket No. 12-228**

COMMENTS OF THE FIBER-TO-THE-HOME COUNCIL
NINTH BROADBAND PROGRESS NOTICE OF INQUIRY

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SUMMARY

In these comments in response to the Ninth Broadband Progress Notice of Inquiry ("Ninth NOI"), the Fiber-to-the-Home Council ("FTTH Council" or "Council") once again responds to the Commission's inquiry: What is Advanced Telecommunications Capability? Regarding fixed services, given the growth of high-definition video applications, the increase in the number of connected devices in the average home, increased use of the cloud and two-way video communications, and the resulting enhanced offerings from broadband providers, it is time that the Commission revise its speed threshold. Increasing the speed threshold to a more realistic and forward-looking level will allow the Commission to continue to take actions to promote the deployment of infrastructure to support faster broadband speeds and greater broadband adoption. That will, in turn, allow broadband providers to reach for a strategic competitive advantage in deploying infrastructure as we compete in the global economic marketplace. Greater broadband speeds will not only serve the existing demand, but it will lead to additional demand through the creation of innovative applications and services.

Further, in resetting the benchmark, the Commission should not be satisfied with merely catching up to the present broadband market, but rather should be forward-looking and seek to pull the broadband-based applications economy forward with its expectations. Consequently, the Council submits that the Commission increase the benchmark to at least 20 Mbps downstream and 5 Mbps upstream.

The purpose of setting a realistic and forward-looking broadband benchmark is so that the Commission can continue to promote the deployment of high speed broadband to underserved Americans. To that end, the Commission should provide proper incentives to rural telecommunications and broadband providers to deploy broadband at the same speeds as are

available to Americans in urban and suburban areas. In addition, the Commission should focus greater resources on ensuring reasonable, expeditious, and cost-based access to rights of way and poles, ducts, and conduits so that broadband providers have a workable business case to expand broadband coverage and upgrade current infrastructure.

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The Fiber-to-the-Home Council ("FTTH Council" or "Council"),[1] through its undersigned counsel, hereby respectfully submits its comments to the Federal Communications Commission ("Commission") in response to the Ninth Broadband Progress Notice of Inquiry

[1] The FTTH Council's mission is to accelerate deployment of all-fiber access networks by demonstrating how fiber-enabled applications and solutions create value for service providers and their customers, promote economic development and enhance quality of life. The FTTH Council's members represent all areas of the broadband access industry, including telecommunications, computing, networking, system integration, engineering, and content-provider companies, as well as traditional service providers, utilities, and municipalities. As of today, the FTTH Council has more than 200 entities as members. A complete list of FTTH Council members can be found on the organization's website: http://www.ftthcouncil.org.

("Ninth NOI").[2] In these comments, the FTTH Council once again responds to the Commission's inquiry: What is Advanced Telecommunications Capability?

Regarding fixed services, given the growth of high-definition video applications, the increase in the number of connected devices in the average home, increased use of the cloud and two-way video communications, and the resulting enhanced offerings from broadband providers, it is time that the Commission revise its speed threshold. Increasing the speed threshold to a more realistic and forward-looking level will allow the Commission to continue to take actions to promote the deployment of infrastructure to support faster broadband speeds and greater broadband adoption. That will, in turn, allow broadband providers to reach for a strategic competitive advantage in deploying infrastructure as we compete in the global economic marketplace. Greater broadband speeds will not only serve the existing demand, but it will lead to additional demand through the creation of innovative applications and services.

After more than a decade at 200 kilobits per second ("kbps") symmetrical as the broadband benchmark, the Commission notes that in 2010 it took the "overdue step" of increasing the broadband speed benchmark to 4 megabits per second ("Mbps") downstream and 1 Mbps upstream to reflect "network capabilities, consumer applications and expectations."[3] With the advances in applications and uses for high-speed broadband described herein, the

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2 *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 12-228, Ninth Broadband Progress Notice of Inquiry, FCC 12-91 (rel. Aug. 21, 2012).

3 *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket Nos. 09-137, 09-51, Report, FCC 10-129, 25 FCC Rcd 9556, 9558, ¶ 4 (rel. July 20, 2010) ("Sixth Report").

Commission should ensure that it does not wait another decade to "take an overdue step" and reset the broadband threshold. The Commission also notes that the National Broadband Plan recommends that the Commission "review and reset" the broadband benchmark "every few years."[4] Therefore, it is time for an update. Further, in resetting the benchmark, the Commission should not be satisfied with merely catching up to the present broadband market, but rather should be forward-looking and seek to pull the broadband-based applications economy forward with its expectations. Consequently, the Council submits that the Commission increase the benchmark to at least 20 Mbps downstream and 5 Mbps upstream.

I. THE COMMISSION'S GOAL SHOULD BE TO ENCOURAGE BROADBAND SERVICES THAT WILL CREATE A STRATEGIC BANDWIDTH ADVANTAGE AND ELIMINATE BANDWIDTH AS A CONSTRAINT ON INNOVATION AND PRODUCTIVITY

At a recent conference, the former head of the Commission's National Broadband Plan initiative and current founder of Gig.U., Blair Levin, accurately described what our communications policy goals should be. He said that "the prime purpose of communications policy should be to improve knowledge exchange by delivering a *strategic bandwidth advantage* and a psychology of bandwidth abundance" and "the prime mission of communications policy ought to be to *eliminate bandwidth as a constraint on innovation and productivity*."[5] In the Eighth Report, the Commission similarly noted that the National Broadband Plan set a goal of 100 million homes with affordable access to 100 Mbps download and 50 Mbps upload speeds by

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4 Ninth NOI, ¶ 7 (citing National Broadband Plan at 135).

5 Gig.U "Upgrading America: Achieving a Strategic Bandwidth Advantage And a Psychology of Bandwidth Abundance To Drive High-Performance Knowledge Exchange" at the Fujitsu Conference on Paving the Road to Unlimited Bandwidth: Technologies and Applications for a Connected Age, San Jose, CA at 2 (June 13, 2012) ("Upgrading America") (emphasis added).

2020 "to create the world's most attractive market for broadband, applications, devices, and infrastructure."[6] Chairman Genachowski recently reiterated these goals when he wrote "in this flat global economy a *strategic bandwidth advantage* will help keep the U.S. as the home and most desired destination for the world's greatest innovators and entrepreneurs" and that "[w]e need to *remove bandwidth as a constraint on our innovators and entrepreneurs*."[7]

Mr. Levin also discussed the importance of creating networks that "don't just follow demand but networks that lead demand."[8] In its comments on the Eighth NOI last year, the FTTH Council discussed the fact that new applications "fill the pipes" when speeds increase, which once again drives providers to increase the capabilities of their services.[9] Retaining the existing 4 Mbps download and 1 Mbps upload speed threshold does not advance these worthy goals. As discussed below, the market has surpassed the current speed benchmark for the majority of Americans, but many areas of the country lack these higher performance services and there is insufficient incentive for growth. Setting an appropriate speed benchmark consistent with the goals discussed above is an important step to support the Commission's ongoing efforts to advance the deployment of high-speed broadband and service improvements to all Americans in a reasonable and timely fashion.

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6 *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 11-121, Eight Broadband Progress Report, FCC 12-90 (rel. Aug. 21, 2012) ("Eighth Report").

7 Genachowski, Julius, "The Need for Speed," TechCrunch (Sept. 16, 2012), available at http://techcrunch.com/2012/09/16/the-need-for-speed/.

8 Upgrading America at 7.

9 Comments of the Fiber-to-the-Home Council, GN Docket No. 11-121 at 5 (filed Sept. 6, 2011) ("FTTH Council Comments on Eighth NOI").

II. BROADBAND PROVIDERS ARE TAKING IMPORTANT STEPS TO REMOVE BANDWIDTH AS A CONSTRAINT TO INNOVATION

In its comments last year on the Eighth NOI, the FTTH Council described two 1 Gbps broadband projects that had been announced – Google Fiber in Kansas City and the Gig.U project for connecting university communities.[10] Google Fiber now has plans to offer 1 Gbps broadband Internet service for $70.00 per month.[11] Gig.U has completed its Request for Information process and engaged with communities regarding their next steps to encourage the deployment of ultra-high speed broadband networks.[12]

In addition, the Chattanooga Electric Power board has opened an application-incubation facility called "Gig Tank" to develop applications that will take advantage of a gigabit network.[13] In August, over a dozen teams of entrepreneurs and students presented the gigabit applications that they had worked on over the summer.[14] One entrepreneur team recognized that a researcher can currently get a terabyte of data from California to London faster by flying there than by sending it over the Internet, so they developed an application that allows users to send and share

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10 *Id*. at 10.

11 *See* Google Fiber Plans and Pricing, available at http://fiber.google.com/plans/residential/.

12 *See* Report to Gig.U Member University Communities on Responses to their Request for Information (Feb. 13, 2012), available at http://www.gig-u.org/wp-content/uploads/2012/02/Gig.U-Public-Report-on-RFI-Results-Final.pdf.

13 *See* Render, Michael and Savage, Joe, "Residential Gigabit Subscribers Services, Applications and Attitudes: A Joint Report Prepared for The FTTH Council, North America" at 9 (Mar. 2012), available at http://www.ftthcouncil.org/sites/ftthcouncil.org/files/residential_gigabit_subscribers_whitepaper_north_america.pdf.

14 *See* Settles, Craig, "Chattanooga Unleashes the Power of Gigabit Computing at GigTank Demo Day," GigaOM (Aug. 12, 2012), available at http://gigaom.com/2012/08/12/chattanooga-unleashes-the-power-of-gigabit-computing-at-gigtank-demo-day/.

terabytes of data in minutes using the gigabit network.[15] A student team developed a facial recognition application, which can scan, photograph and process data for 400 people simultaneously and produce 4,000 photos in a second using the gigabit network.[16] Finally, a local radiologist spoke at the meeting about how radiologists and medical facilities can save 40 hours per radiologist using Chattanooga's gigabit network.[17]

Further evidence of the potential growth in demand for high-bandwidth applications can be seen in the work of the USIgnite Partnership, a non-profit public-private organization created "to promote US leadership in developing applications and services for ultra-fast broadband and software defined networks."[18] Its primary goal is to "catalyze approximately 60 advanced, next-gen applications over the next five years in six areas of national priority: education and workforce development, advanced manufacturing, health, transportation, public safety, and clean energy."[19] Another mission set by the Partnership is to maximize the potential of the National Science Foundation-funded Global Environment for Network Innovation (GENI), which is connecting university campuses and cities that have committed to advanced technology infrastructure with 100 Mbps symmetrical broadband speeds to allow pre-commercial, next-generation application to be demonstrated.[20] The Partnership, which launched a series of high-speed projects this past summer, includes companies like Verizon, AT&T, Comcast and Cisco;

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15 *See id.*

16 *See id.*

17 *See id.*

18 *See* USIgnite at http://us-ignite.org/.

19 *See id.*

20 *See id.*

FTTH Council members including Hiawatha Broadband Communications, Utopia, and Lafayette Utilities System; and cities like Philadelphia, San Francisco and Chattanooga.[21]

These examples demonstrate the ability for ultra-high speed broadband networks to open a world of possibility for new applications and create dramatic efficiencies for professionals.[22] So far these examples represent test beds in specific communities, but ultra-high speed broadband networks are also expanding more generally. Sonic.net, which manages Google's gigabit service at Stanford University, also provides that service in several other communities in northern California (Forestville, Healdsburg, Santa Rosa and Petaluma) and is expanding.[23] The 1 Gbps service costs $70.00 per month and includes phone service.[24] As of June, 2012, Verizon's FiOS service offers download speeds up to 300 Mbps and upload speeds up to 65 Mpbs.[25] Comcast's Xfinity Extreme service provides broadband speeds up to 105 Mbps.[26] In its 2012 Measuring Broadband America Report, the Commission noted that "at least seven of the ISPs participating in this study advertise tiers of 50 Mbps, and four of those ISPs also offer tiers

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21 *See id.*

22 For examples of how students are using technology now and would use higher broadband speeds, *see* College of St. Scholastica, A Vision of the Future: 36 Ways to Use 100 Mbps (Nov. 19, 2011), available at http://blandinonbroadband.org/2011/11/19/36-ways-to-use-100-mbps/.

23 Bussewitz,, Cathy "Sonic.net builds super-fast network for future," The Press Democrat (May 6, 2012), available at http://www.pressdemocrat.com/article/20120506/BUSINESS/120509761?p=3&tc=pg.

24 *Id.*

25 *See* News Release, Verizon Users in New Era of Consumer Broadband; New FiOS Portfolio Features Speeds of 75, 150 and 300 Mbps (May 30, 2012), available at http://newscenter.verizon.com/press-releases/verizon/2012/verizon-ushers-in-new-era-of.html ("Verizon News Release").

26 *See* http://wwwb.comcast.com/products/xfinity-internet.html?CMP=KNC-IQ_ID_48056041-VQ2-g-VQ3--VQ6-20889010279&iq_id=48056041.

of 100 Mbps or higher in at least some of their service areas."[27] These high-speed broadband services are available more broadly across the country and will also allow researchers, academics, students, engineers and entrepreneurs to develop new and innovative applications that will promote economic growth. In other words, as the Commission has stated, "[i]nfrastructure empowers innovation and innovation drives demand for infrastructure. Broader access to fast broadband will encourage the expansion and adoption of cloud computing, more productive telecommuting, online education, telemedicine, and more."[28]

III. CURRENT AVERAGE BROADBAND SPEEDS GREATLY EXCEED THE EXISTING BENCHMARK DUE PRIMARILY TO THE DEMAND FOR VIDEO, USE OF MULTIPLE CONNECTED DEVICES AND USE OF THE CLOUD, AND THESE PRESSURES ON DEMAND ARE EXPECTED TO INCREASE

In addition to the ultra-high speed broadband networks and services described above, average broadband speeds have greatly surpassed the existing broadband benchmark of 4/1 Mbps and continued rapid growth is expected. The Commission asks several important questions in the Ninth NOI and focuses on the correct drivers of increases in broadband speeds – video and devices. The Commission notes that "section 706 focuses on a consumer's ability to originate and receive certain specific services, including 'high-quality voice, data, graphics, and video telecommunications.'" The Commission further inquires – "Which of these services are American's using most today? Which are seeing the highest growth? What download and upload speeds are necessary for users to originate and receive each of these services?" According to the Cisco 2012 Zettabyte Report, global "IP traffic will grow at a compound annual

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27 *See* 2012 FCC Measuring Broadband America July Report at 6, available at http://transition.fcc.gov/cgb/measuringbroadbandreport/2012/Measuring-Broadband-America.pdf ("2012 Measuring Broadband America Report").

28 *Id*.

growth rate ("CAGR") of 29 percent from 2011 to 2016."[29] The primary drivers of increased broadband speeds are demand for video, consumers connecting and using multiple devices to networks and expanded use of the cloud (which necessitates faster upload speeds).

Video. According to the Cisco 2012 Zettabyte Report, "[f]ixed and mobile Internet traffic…are propelled by video."[30] As the Commission states, "Cisco, in its latest report, predicts that Internet video traffic will account for 54% of all Internet data traffic by 2016, up from 51% in 2011."[31] Therefore, when the Commission asks which services Americans are using most today, the answer as of last year is that the majority of Internet traffic is video. The Cisco report also states that "[t]he sum of all forms of IPvideo (Internet video, IP VoD, video files exchanged through file sharing, video-streamed gaming, and videoconferencing) will ultimately reach 86 percent of total IP traffic."[32] Verizon concurs with this assessment and states, "[a]s recently as 2005, video was less than 10 percent of Web traffic…By the end of the year, we expect it to be 50 percent, growing to 90 percent in just a few years."[33] Further, Cisco finds that PC-originated traffic will grow at a CAGR of 26 percent, but TVs will have traffic growth at 77 percent.[34]

Also according to Verizon, a 2 hour HD video movie at 5 GB takes 44.4 minutes to download at 15 Mbps and 2.2 minutes at its highest speed tier of 300 Mbps.[35] The Commission

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29 Cisco, The Zettybyte Era at 1 (May 30, 2012), available at http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/VNI_Hyperconnectivity_WP.pdf ("Cisco 2012 Zettabyte Report").

30 *Id*. at 5.

31 Ninth NOI, ¶9.

32 Cisco 2012 Zettabyte Report at 5.

33 Verizon News Release at 2.

34 *See* Cisco 2012 Zettabyte Report at 2.

35 *See* Verizon News Release at 1.

has asked the right question – "In light of the demand for more and higher-quality video services, should we raise the 4 Mbps/1 Mbps speed threshold for fixed terrestrial broadband services?"[36] Based on the rapid expansion of video use over broadband and the necessary speeds to take advantage of it, he answer is yes.

Multiple Devices. The Commission notes in the Ninth NOI that "an increasing number of households are attaching multiple devices to a single, shared household broadband connection."[37] Cisco has calculated that over 60 million units of connected personal devices were sold in the U.S. in 2010.[38] Moreover, according to the Cisco 2012 Zettabyte Report, globally "[t]here will be nearly three networked devices per capita in 2016, up from one networked device per capita in 2011."[39] Just last year Cisco predicted that there would only be two networked devices for every person by 2015[40] and this year it predicts three per person by 2016. When announcing its new 300 Mbps broadband service, Verizon noted that the new speeds are "designed to address the burgeoning growth of bandwidth-intensive applications and the increase in the number of Internet-connected devices being used simultaneously in the same

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36 Ninth NOI, ¶ 9.

37 *See id.*, ¶ 10 (citing 2011 Household Broadband Guide). The FTTH Council also referenced the 2011 Household Broadband Guide in its Comments on Eighth NOI. The FTTH Council referenced the determination that, "if high-demand applications (*e.g.*, streaming HD, video conferencing or online gaming) are access simultaneously by more than one user/device, the minimal speed service the HSG recommends is greater than 15 Mbps." FTTH Comments on Eighth NOI at 9.

38 Cisco, Consumer Cloud Demand (March 2012), available at http://www.cisco.com/web/about/ac79/docs/sp/CLMW-Cloud-Demand.pdf.

39 Cisco 2012 Zettabyte Report at 1.

40 *See* FTTH Council Comments on Eighth Report at 8 (citing Cisco, Entering the Zettabyte Era at 2 (June 1, 2011)).

household."[41] It has also found that "the average home has seven Internet-connected devices" and "the average home by 2015 will have between nine and 15 Internet-connected devices."[42]

The Commission's suspicion is correct that consumers are connecting more devices to their broadband networks and that is fueling need for increased broadband speeds. Whether the number of connected devices doubles or triples over the next three to four years, it will drive rapidly increasing demand for higher-speed broadband services.

The Cloud. A natural corollary to the use of multiple devices is the fact that consumers are increasingly using the cloud to store and share data, music and video among those various devices. A family may have several smartphones, tablets and other devices connected to the home network and iCloud or another cloud storage service. This results in a constant upstream and downstream data sharing process and drives demand for faster upstream broadband speeds. According to the FTTH Business Guide, "upstream bandwidth will become increasingly important as applications requiring two-way video sharing become more commonplace, and cloud-based services, such as Apple's iCloud, proliferate."[43] The FTTH Business Guide also shows that an HD PC videoconference requires upstream speeds closer to 4 or 5 Mbps, as opposed to the current threshold of 1 Mbps.[44]

These changes – the increase in video as a percentage of IP traffic, the use of multiple devices on networks and use of cloud storage and sharing – has resulted in increased average broadband speeds among those that are served and that growth in expected to continue. In its

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41 Verizon News Release at 2.

42 *Id*. Verizon is likely referring to average homes that are Verizon customers.

43 FTTH Council of Europe, FTTH Business Guide, at 12 (Revision date July 2, 2012), available at http://broadband.cti.gr/download/FTTH-Business-Guide-2012-V3.0-English.pdf.

2012 Measuring Broadband America Report, the Commission found that "customers subscribed to faster speed tiers in 2012 than in 2011" which was due to "upgrades by ISPs to their network as well as some migration of consumers to higher speed services."[45] More specifically, the Commission found that the average speed tier was 14.3 Mbps, an increase of almost 30 percent over the 2011 average.[46] In addition, actual experienced speed increased by almost 38 percent to 14.6 Mbps.[47] The report acknowledged that it "focuses on the most popular service tiers within a company and not on speeds that may be offered by ISPs," however, "higher and higher speed tiers are becoming available to consumers."[48]

This statistic – average experienced broadband speeds of 14.6 Mbps – clearly indicates that the Commission should increase its outdated broadband benchmark. The rapid pace of growth in these speeds; the expectations for growth in the demand for HD video, connecting multiple devices and utilization of cloud services; and the higher-speed offerings that ISPs are making available as a result further indicate that the Commission should be forward-looking in its redefinition of "advanced telecommunications capability."

IV. THE COMMISSION SHOULD ESTABLISH A 20 MBPS DOWNLOAD AND 4 MBPS UPLOAD BROADBAND SPEED THRESHOLD

The FTTH Council has demonstrated that current average broadband download speeds (*i.e.*, 14.6 Mbps) have greatly surpassed the current broadband benchmark, and all indicators show that growth in broadband speeds will continue to increase rapidly, both in the United States

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44 *Id.*

45 *Id.* 2012 Measuring Broadband America Report at 5.

46 *Id.* at 6.

47 *See id.*

48 *Id.*

and globally. As discussed above, broadband speeds have grown at 38 percent and there is no reason to think that such growth rates will slow in the foreseeable future. Therefore, next year it is likely that average experienced download speeds will be 38 percent higher, or 20 Mbps.

Further, since our communications goal should be to eliminate bandwidth as a constraint on innovation and productivity and create a strategic bandwidth advantage, the Commission's broadband benchmark should pull the Internet infrastructure forward, rather than merely reacting to the marketplace. According to Akamai's first quarter 2012 State of the Internet Report, the U.S. currently ranks 12th in average Mbps.[49] That is not a strategic broadband advantage. Further, expansion of ultra-high speed broadband networks are fueling innovative applications, however, many areas of the country lack these higher performance services and there is insufficient incentive for growth.

The FTTH Council continues to support a tiered approach, which would allow the Commission to adopt policies to simultaneously seek many objectives, including bringing first-time service to unserved areas, upgrading the quality of existing broadband service and establishing goals for future generation broadband service capable of supporting applications coming to market. Since the Commission does not necessarily plan to update its benchmark annually, the benchmark should be set higher.

Therefore, the FTTH Council proposes that the Commission adopt the following broadband benchmark speed tiers, with the "average" serving as the benchmark on which the Commission should makes its determination as to whether the standard in Section 706 is being achieved.

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[49] *See* Akamai, "The State of the Internet," 1st Quarter, 2012 Report at 13.

ADVANCED TELECOMMUNICATIONS CAPABILITY TIER	UPLOAD SPEED	DOWNLOAD SPEED
MINIMUM	1 Mbps	4 Mbps
AVERAGE	5 Mbps	20 Mbps
MAXIMUM	100 Mbps	1 Gbps

V. THE COMMISSION SHOULD CONTINUE AND REINVIGORATE ITS FOCUS ON ADDRESSING ROADBLOCKS TO BROADBAND DEPLOYMENT

The Commission seeks comment on the actions it should take to accelerate deployment of broadband, including regarding the costs and delays in building out networks.[50] It is critical that the Commission set a realistic and forward-looking broadband benchmark so that it can continue to promote the deployment of high speed broadband to underserved Americans. Only then can those who are underserved have the same educational, career and market opportunities as those that currently have access. The Commission should provide proper incentives to rural telecommunications and broadband providers to deploy broadband at the same speeds as are available to Americans in urban and suburban areas. This means both increasing the broadband performance obligations of these rural providers beyond the current 4/1 Mbps benchmark (i.e., setting the broadband benchmark developed in this proceeding as the new benchmark for CAF support) and giving them sufficient support to deploy networks capable of meeting future performance requirements.

Further, the Commission should focus greater resources on ensuring reasonable, expeditious, and cost-based access to rights of way and poles, ducts, and conduits so that

[50] *See* Ninth NOI, ¶ 55.

broadband providers have a workable business case to expand broadband coverage and upgrade current infrastructure. Despite positive steps by the Commission, much more needs to be done. At his recent visit to Google's Google Fiber project in Kansas City, Commissioner Pai said,

> It is critically important that states and local communities adopt broadband-friendly policies when it comes to rights-of-way management. When broadband service providers seek to construct next-generation networks, they need to access government-controlled land, poles, and conduits in order to lay fiber and install other infrastructure. Currently too many providers who try to obtain such access are confronted with daunting sets of federal, state, and/or municipal regulations that often delay and sometimes deter infrastructure investment and broadband deployment.[51]

Last Spring, for instance, the Commission released a Notice of Inquiry to collect information from the industry regarding rights of way impediments to the deployment of broadband and other communications services.[52] Several parties, including Verizon, Level 3 and the American Cable Association highlighted laws, rules, policies and practices that impede broadband deployment through unreasonable control over access to rights of way.[53]

As a result of that proceeding, the Commission provided recommendations to the executive branch to address these issues on federal lands. Those recommendations in part led to the President issuing an Executive Order that established a Broadband Deployment on Federal Property Working Group. The Working Group was tasked with developing and implementing a

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51 Statement of Commissioner Ajit Pai On His Visit to Kansas City's Google Fiber Project (September 5, 2012).

52 *See Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting*, WC Docket No. 11-59, Notice of Inquiry, FCC 11-51 (rel. Apr. 7, 2011).

53 *See e.g.*, Comments of Level 3 Communications, LLC, WC Docket No. 11-59 (filed July 18, 2011); Comments of Verizon and Verizon Wireless, WC Docket No. 11-59 (filed July 18, 2011); and Reply Comments of the American Cable Association, WC Docket No. 11-59 (filed Sept. 30, 2011).

strategy to facilitate timely and efficient deployment of broadband facilities on Federal lands, buildings, and rights of way, federally assisted highways and tribal lands…that ensures a consistent approach. The member agencies that manage federal lands and rights of way are also required to develop and use one or more templates for uniform contract, application and permit terms to facilitate non-governmental entities' use of Federal property for the deployment of broadband facilities.

This is important progress and should lead to more efficient and greater access to federal lands and rights of way for broadband providers, however, the Commission needs to be vigilant so that actual measures are taken by federal agencies to facilitate timely and reasonable access. In addition, the Commission should continue to consider methods for improving access to non-federal rights of way through changes to state and local laws and regulations, as well as access to private rights of way such as railroad track crossings. We are in the midst of rewiring America with fiber, and the Commission has an important role to play in removing barriers that thwart progress.

VI. CONCLUSION

In conclusion, the FTTH Council urges the Commission to adopt its proposed definition of advanced telecommunications capability – 20 Mbps/5Mbps -- that reflects the current state of the market and that is forward-looking. The Council submits that its multi-tier definition proposed above meets those objectives. It stands ready to assist the Commission as it evaluates the market for advanced telecommunications services and drafts the Ninth Report.

Respectfully submitted,

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